

IN THE CLAIMS:

1-15. Canceled.

16. (New) A rotary engine including:

a rotatable member;

two or more cylinders spaced circumferentially of said rotatable member, respective longitudinal axes of said two or more cylinders being located adjacent an outer region of said rotatable member and extending tangentially to a rotational path thereof; and,

two or more pistons, each piston being associated with a respective cylinder, each said piston being associated with a respective piston lever pivoted on said rotatable member at a fulcrum point eccentrically to a rotational axis of said rotatable member and wherein movement of each said piston between top and bottom dead centres is controlled such that combustion energy is transmitted to said rotatable member by said two or more cylinders moving away from said respective two or more pistons, said engine characterized in that movement of each said piston is controlled by a piston controller disposed adjacent a proximal end of a respective piston lever, the proximal end of each said piston lever being coupled with said piston controller to communicate movement to a respective piston lever; said controller comprising a link arm pivotally coupled at opposite ends thereof to proximal ends of piston levers of respective pistons of diametrically opposed cylinders whereby the excursion of one piston on a compression strike is assisted by excursion of a diametrically opposed piston on a combustion stroke.

17. (New) The rotary engine as claimed in claim 16 wherein each said piston level comprises a substantially straight member.

18. (New) The rotary engine as claimed in claim 16 wherein a pivotal axis of a pivotal coupling between a respective end of each link arm and a proximal end of a respective piston lever is displaced to one side of line intersecting respective said fulcrum points and a pivotal axis of a pivotal coupling between a distal end of each said piston lever and a respective piston assembly.

19. (New) The rotary engine as claimed in claim 18 wherein each said piston lever is L-shaped.

20. (New) The rotary engine as claimed in claim 18 wherein each said piston assembly is engaged, either directly or via a connecting rod, to a distal end of a respective piston lever, respective proximal ends of said piston levers being manipulated to control movement of a respective piston relative to a respective cylinder.

21. (New) The rotary engine as claimed in claim 16 wherein said engine is a two-stroke engine.

22. (New) The rotary engine as claimed in claim 18 wherein said engine is a two-stroke engine.

23. (New) The rotary engine as claimed in claim 16 wherein said piston controller includes a cam member having one or more lobes on a circumferential surface thereof.

24. (New) The rotary engine as claimed in claim 23 wherein said cam member engages respective proximal ends of said piston levers via a rotatable roller member.

25. (New) The rotary engine as claimed in claim 23 wherein said cam member is rotationally independent of said rotatable member.

26. (New) The rotary engine as claimed in claim 23 wherein said cam member is rotatable in an opposite direction to said rotatable member.

27. (New) The rotary engine as claimed in claim 23 wherein said cam member is utilized to control piston dwell at either end of respective piston strokes.

28. (New) The rotary engine as claimed in claim 16 wherein an energy stroke delivered to the rotatable member is longer than a combustion stroke of a piston.

29. (New) The rotary engine as claimed in claim 23 wherein an energy stroke delivered to the rotatable member is longer than a combustion stroke of a piston.

30. (New) The rotary engine as claimed in claim 16 wherein a compression stroke assists in supplying rotational energy to the rotatable member.

31. (New) The rotary engine as claimed in claim 16 wherein a mass is associated with each piston lever, centrifugal force acting on said mass to aid excursion of said pistons within respective cylinders.

32. (New) The rotary engine as claimed in claim 16 wherein substantially all force exerted in relative movement between said cylinders and respective pistons is along respective longitudinal axes of said cylinders thereby reducing the effect of cylinder bore side thrust.

33. (New) The rotary engine as claimed in claim 23 wherein substantially all force exerted in relative movement between said cylinders and respective pistons is along respective longitudinal axes of said cylinders thereby reducing the effect of cylinder bore side thrust.

34. (New) The rotary engine as claimed in claim 16 wherein force generated at the cylinders is delivered directly to an output shaft via said rotatable member.

35. (New) The rotary engine as claimed in claim 23 wherein said engine is a four-stroke engine.